

What is claimed is:

1. An electronic circuit comprising:
  - 5 a controller for processing a processor task;  
an energy determination means for determining the energy available to the controller; and
  - 10 a control means (for controlling the controller depending on the energy available to the controller.
- 15 2. The electronic circuit as claimed in claim 1, wherein the control means is arranged so as to control the controller such that an energy required by the controller for the processor task is essentially equal to the energy available to the controller.
- 20 3. The electronic circuit as claimed in claim 1, further comprising:
  - an energy provision means for producing the energy available to the controller from electromagnetic energy supplied
  - 25 externally.
4. The electronic circuit as claimed in claim 1, which is designed as an integrated circuit suitable for an application with contact-less terminals.
- 30 5. The electronic circuit as claimed in claim 1, wherein the control means comprises:

a means for setting the controller clock with which the controller is operated, wherein a clock rate of the controller clock is increased when there is more energy available and decreased when there is less energy available.

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6. The electronic circuit as claimed in claim 1, wherein the controller is implemented in CMOS technology.

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7. The electronic circuit as claimed in claim 1, wherein the controller comprises:

a plurality of peripheral devices for performing associated tasks; and

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a central processing unit for driving the plurality of peripheral devices,

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wherein the control means is arranged so as to control the plurality of peripheral devices depending on the processor task, the associated tasks and the energy available to the controller.

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8. The electronic circuit as claimed in claim 7, wherein the control means is arranged so as to control the peripheral devices such that the computing time required for the performance of the processor task by the controller is minimized.

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9. The electronic circuit as claimed in claim 7, wherein the controller is a cryptography processor, and the plurality of peripheral devices are cryptocoprocessors for performing computing tasks, and wherein the processor task is selected from a group consisting of an encryption, a decryption, an

authentication and a signature according to the DES standard, the AES method, the RSA algorithm and the elliptic-curve method, and wherein the computing tasks of the plurality of cryptocoprocessors are selected from a group including a modular and non-modular addition, multiplication, exponentiation and inversion, a hash-value calculation and a random number determination.

10. The electronic circuit as claimed in claim 7, wherein the control means further comprises:

a means for setting the peripheral device clocks with which the plurality of peripheral devices are operated; and

a means for switching off individual peripheral devices of the plurality of peripheral devices.

11. The electronic circuit as claimed in claim 10, wherein the means for setting the peripheral device clocks comprises an oscillator associated with one of the plurality of peripheral devices and producing a clock signal with an output clock frequency with which the associated peripheral device is clocked.

12. The electronic device as claimed in claim 10, wherein the means for setting the peripheral device clocks comprises a clock multiplier associated with one of the plurality of peripheral devices and producing a clock signal with an output clock frequency with which the associated peripheral device is clocked.

13. The electronic circuit as claimed in claim 1, wherein the controller comprises a peripheral device for performing

an associated task, and a central processing unit for driving the peripheral device, and wherein the control means comprises a first means for setting a first clock with which the central processing unit is operated, and a second means  
5 for setting a second clock with which the peripheral device is operated, the first and second clocks being set such that the energy available suffices for processing the processor task and that, at the same time, the peripheral device is assigned a maximum energy possible for performing the  
10 associated task.

14. A method for controlling an electronic circuit comprising a controller for processing a processor task, the method comprising:

15 determining the energy available to the controller; and  
controlling the controller depending on the energy available to the controller.